

ABSTRACT

Transfer functions are often used for image processing. Look-up tables can be used to implement transfer functions in a processor-efficient manner. In one embodiment, the invention is an apparatus that includes a look-up table (LUT) storing sample outputs from an output range of a transfer function, the sample outputs corresponding to sample inputs from an input range of the transfer function, the sample inputs being distributed so that more sample inputs are associated with a first region of the transfer function than a second region of the transfer function; and an address module to calculate an index into the LUT based on image data. In one embodiment, the apparatus uses the LUT to process the image data.